

SIG-NOC Tools Survey 2019 Results

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SIG-NOC

Special Interest Group - Network Operation Centres
Sharing Knowledge to Manage R&E Networks



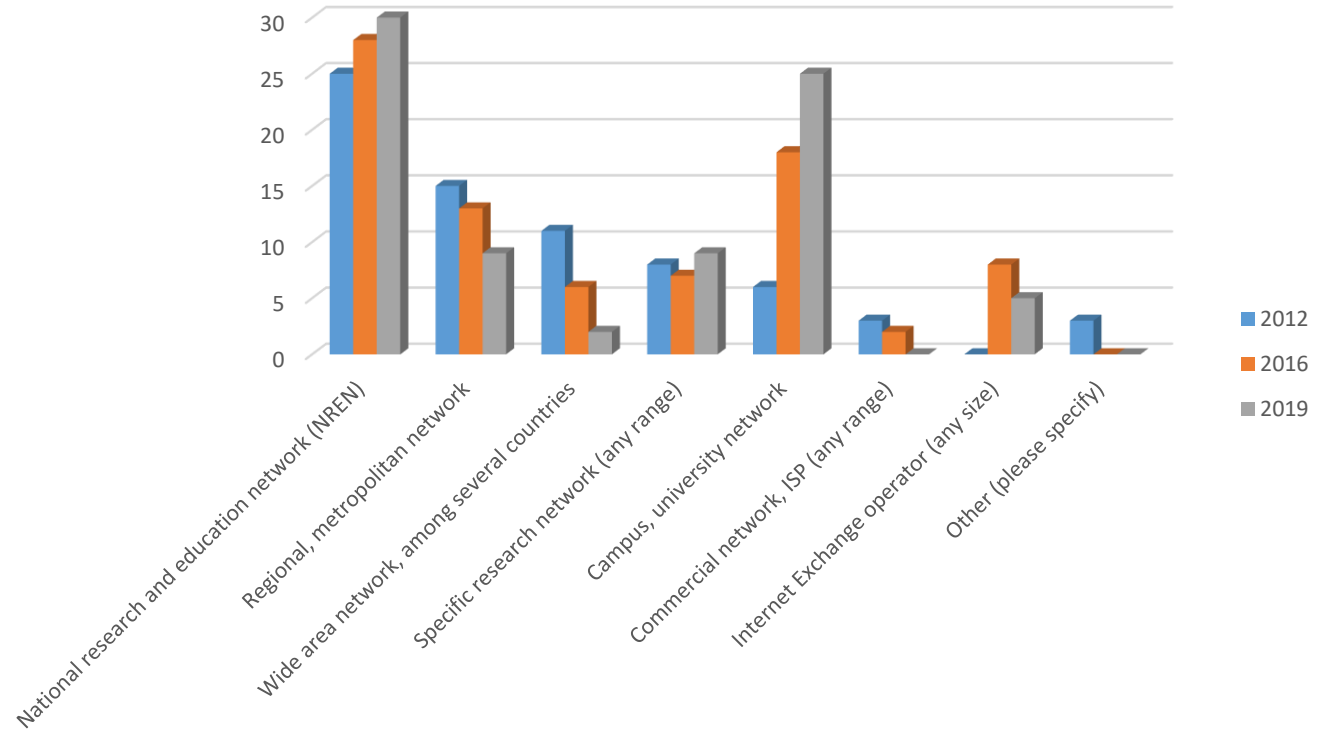
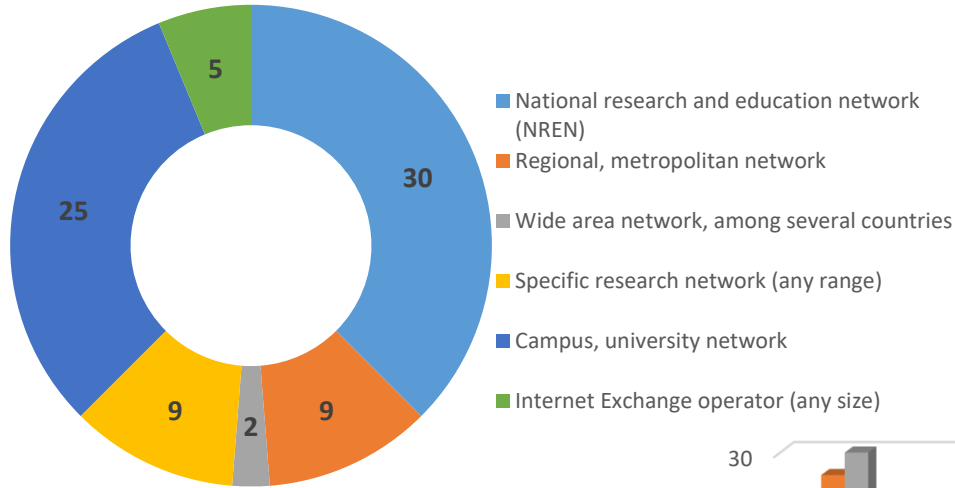
A forum to exchange and promote ideas, experience and knowledge on NOC tools, functions, workflows, procedures and best practices, making communication easier.

Previous Work

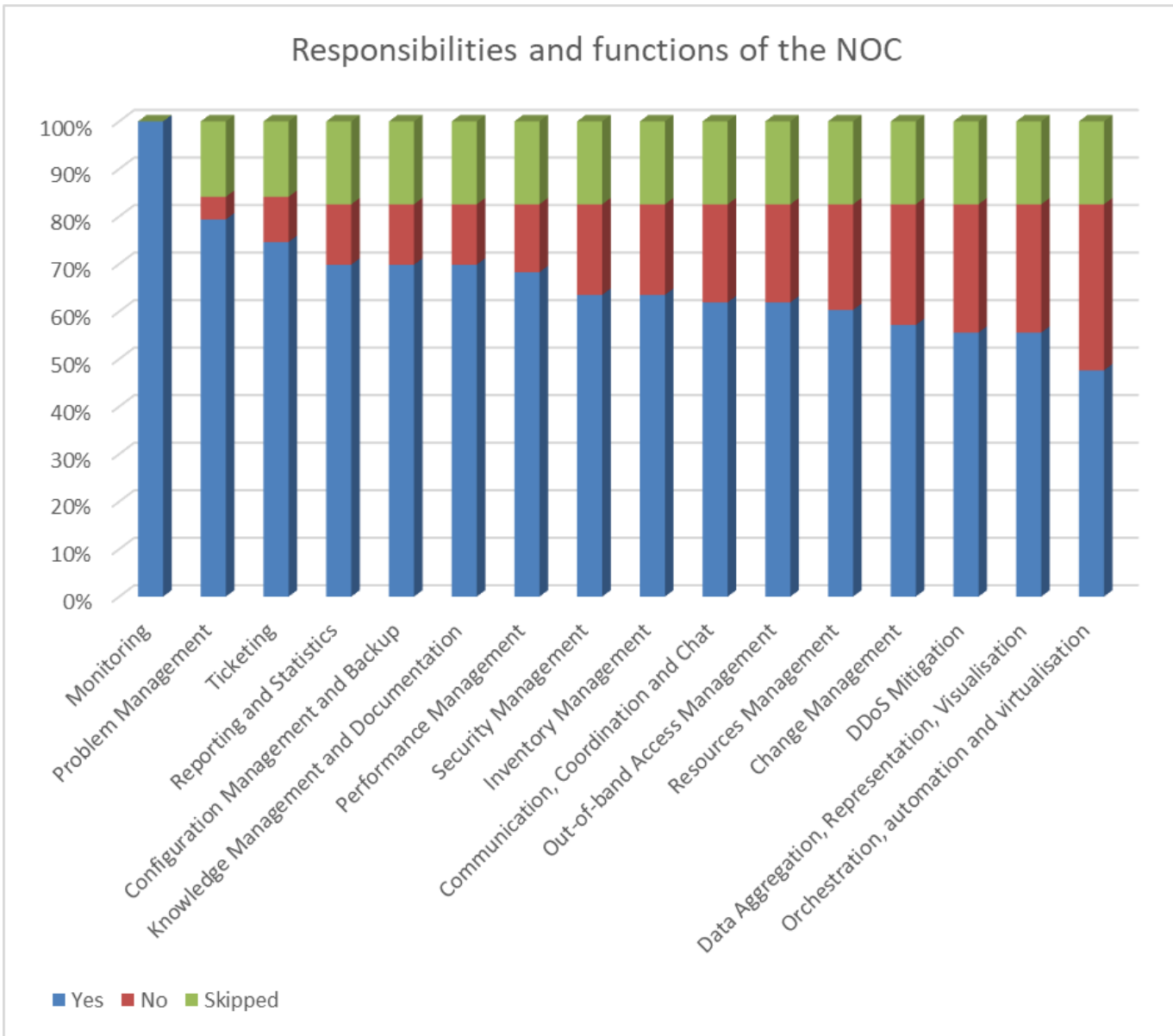
- ✓ 1st Survey: July-October'11, published January'12.
 - NOCs' taxonomy, structures, resources, tools, standards...
 - 14 functions
 - 53 questions, 43 valid responses
 - Open boxes to add feedback
- ✓ 2nd Survey: December'15-February'16, published in June'16.
 - Tools, standards
 - 15 functions (14 + DDoS Mitigation)
 - 35 questions (66), 64 valid responses
 - Rating on importance (low/low-mid/mid-high/high) & quality (poor/fair/average/good/excellent)
- ✓ 3rd Survey: July-September'19, published in November'19.
 - Tools, standards
 - 16 functions (15 + Orchestration, Automation and Virtualisation)
 - 35 questions (74), 63 valid responses
 - Rating on importance (low/low-mid/mid-high/high) & quality (poor/fair/average/good/excellent)



Type (Range) of the Network your Organisation is Responsible For

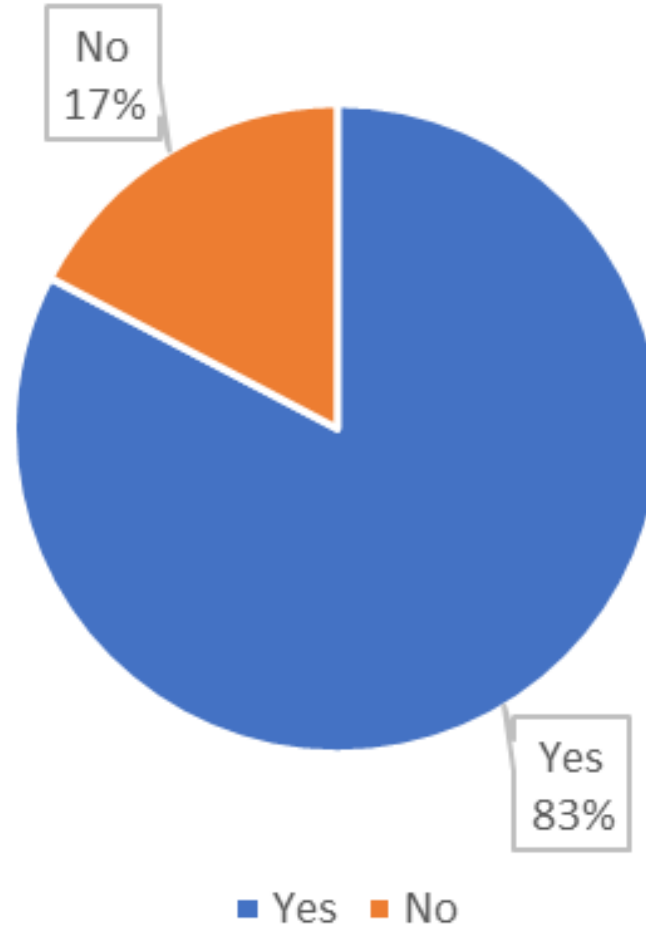


NOCs, Functions and Responsibilities


















Is Your NOC responsible for Performance Management?

Performance Management



NOCs, Functions and Responsibilities since 2016

NOC Functions 2019	2019	2016	Trend
Monitoring	1	1	 0
Problem Management	2	2	 0
Ticketing	3	3	 0
Reporting and Statistics	4	5	 1
Configuration Management and Backup	5	6	 1
Knowledge Management and Documentation	6	8	 2
Performance Management	7	4	 -3
Security Management	8	11	 3
Inventory Management	9	12	 3
Communication, Coordination and Chat	10	7	 -3
Out-of-band Access Management	11	10	 -1
Resources Management	12	14	 2
Change Management	13	9	 -4
DDoS Mitigation	14	13	 -1
Data Aggregation, Representation, Visualization	15	15	 0
Orchestration, automation and virtualisation	16		NEW

NOC Functions & Tools: the Questions

- ✓ For each one of the functions:
 - Short definition of <function>
 - Is your NOC responsible for <function>?
 - Yes → You were asked the questions below
 - No → Jump to the next function
 - What tools do you use for <function>?
 - How important is this tool for your NOC?
 - How would you rate this tool for <function>?

GEANT
SIG-NOC Tools Survey 2019


13. Communication, Coordination & Chat tools

What tools do you use for Communication, coordination, chat? If you don't rate it, it means that you don't use it.

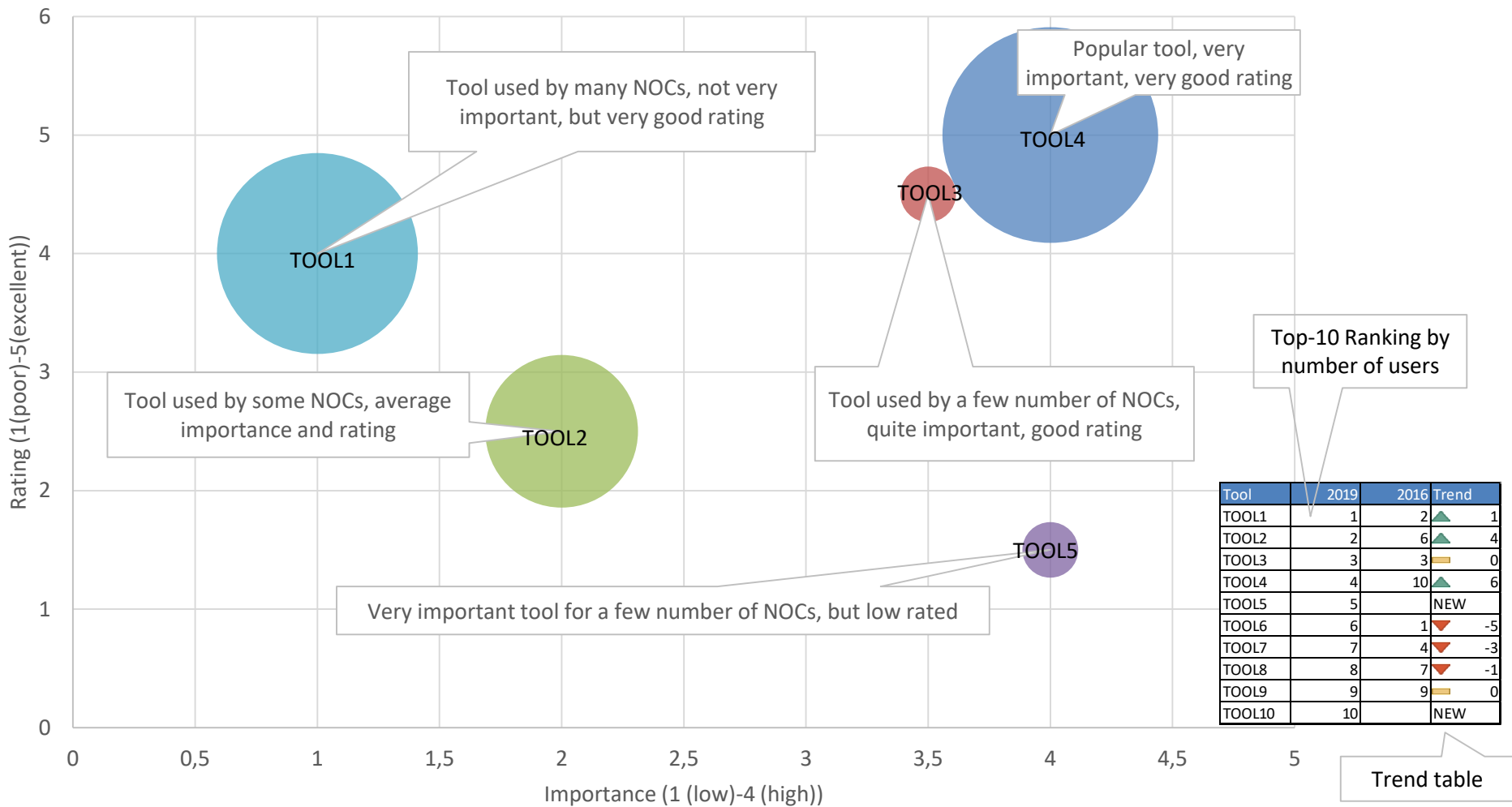
19. How important is this tool for your NOC? 20. How would you rate this tool for Communication, coordination, chat?

	low	low-mid	mid-high	high		poor	fair	average	good	excellent
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Other (please specify as many tools as you miss here)	<input type="text"/>				Other (please specify as many tools as you miss here)	<input type="text"/>				
21. In-house developed tool (please specify):					<input type="text"/>					

Prev Next

 The pre-defined responses in the survey were all the tools that were rated or mentioned by two or more respondents in the 2016 survey

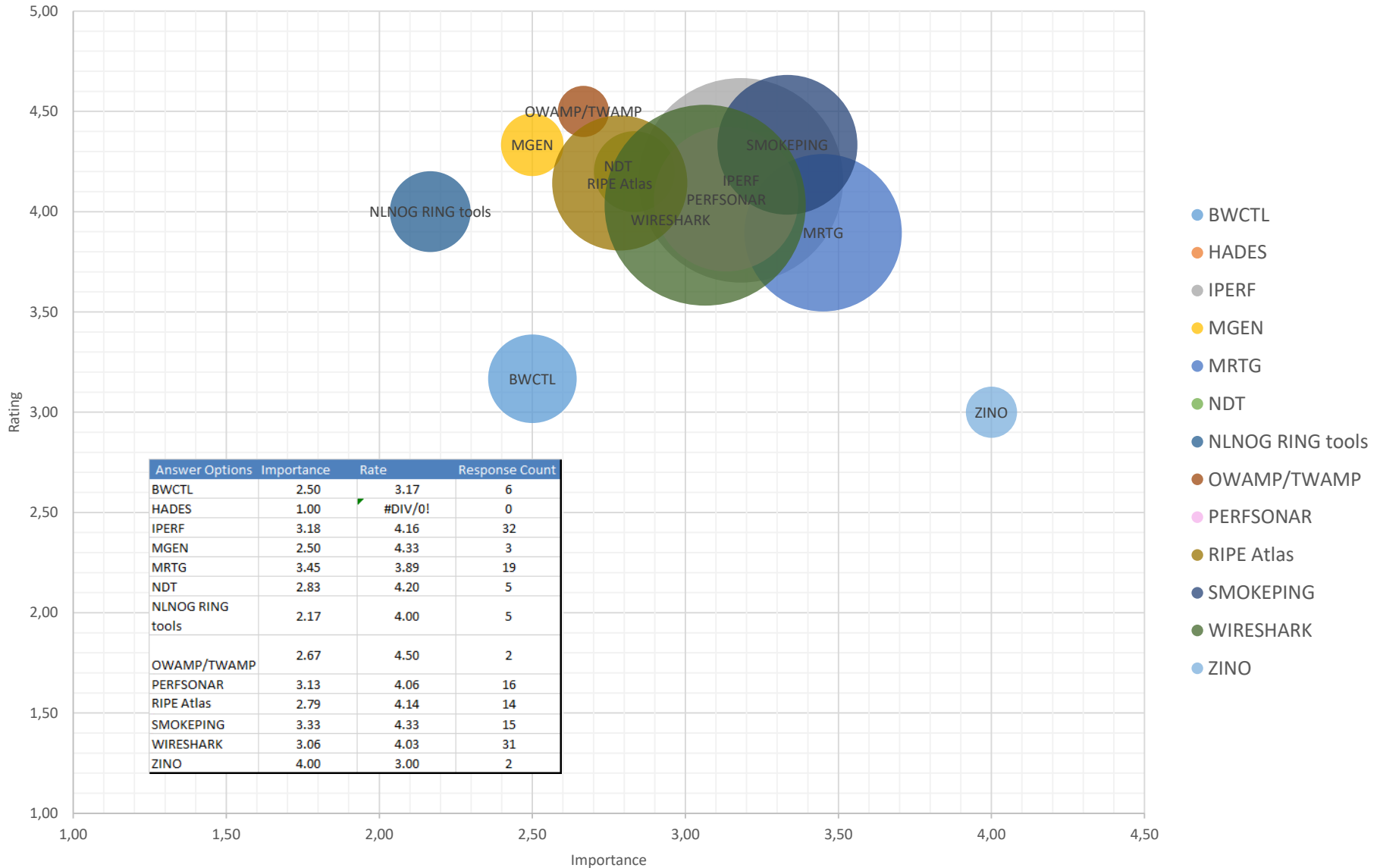
NOC Functions & Tools: Analysis of the Responses How-To



Other not pre-defined tools mentioned by more than one institution, if any (in parentheses, the number of institutions that mention it)











Other tools: TOOL11 (5), TOOL12 (4), TOOL13(4), TOOL14 (2), TOOL15 (2), TOOL16 (2)

Performance Management



Other tools: Several Speedtest were mentioned

Performance Management: Trends and Other tools

Tool	2019	2016	Trend
IPERF	1	1	 0
WIRESHARK	2	2	 0
MRTG	3	3	 0
PERFSONAR	4	4	 0
SMOKEPING	5	5	 0
RIPE Atlas	6	6	 0
BWCTL	7	8	 1
NDT	8	7	 -1
NLNOG RING tools	9	9	 0
MGEN	10	12	 2

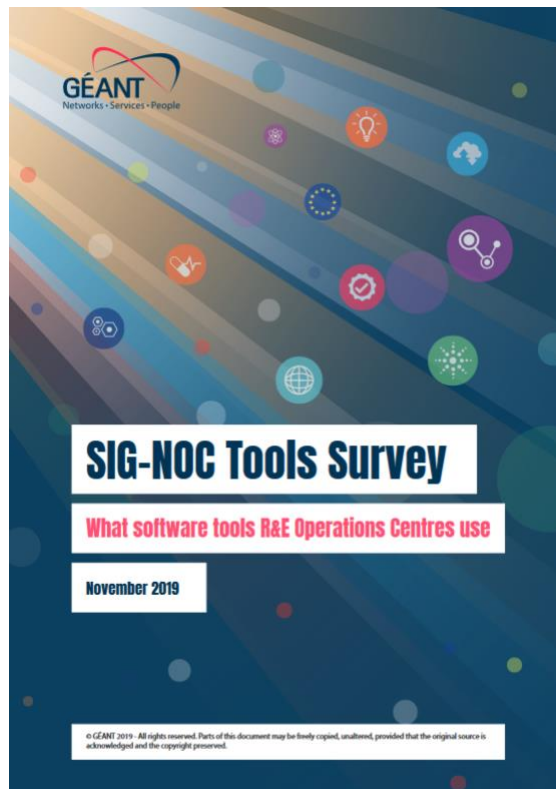
Performance Management: Other Tools

Other tools:	<ul style="list-style-type: none">• AirManager• AKOSTest (Slovenian speed test web app)• ALLOT Netexplorer• CA Performance Center• Cricket• Grafana• HawkEye• HTML5 speedtest• https://github.com/adolfinetel/speedtest• Icinga• Nfsen• Mikrotik speedtest• Munin• Rude/ crude measurements• Scrutinizer• Speedtest• SNMP• Weathermap
In-house developed solutions:	<ul style="list-style-type: none">• packETH https://github.com/jemcek/packETH• FTAS• Speed Test like tool• Bandwidth meter,• Predictive treshold (Zenoss)

More Results

✓ All the results, the report and matrix are available at:

<https://wiki.geant.org/display/SIGNOC/SIG-NOC+Tools+Survey+2019>





Consorti de
Serveis Universitaris
de Catalunya

Thank you!
Questions? Suggestions?

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